Victaulic® Grooved End Fittings

07.01

No. 20 Tee

No. 10 Elbow

Certifications/Listings

When supplied as “hot dip galvanized” the following fittings are UL Classified in accordance with ANSI/NSF 61 and for use on cold +86°F/+30°C potable water service and ANSI/NSF 372: No. 10 90° Elbow, No. 11 45° Elbow, No. 12 22 1/2° Elbow, No. 13 11 1/4° Elbow, No. 100 90° Long Radius Elbow, No. 110 45° Long Radius Elbow, No. 20 Tee, No. 25 Tee with Grooved Branch, No. 30 45° Lateral, No. 60 Cap, No. 50 Concentric Reducers, No. 51 Eccentric Reducers.

Note: The following Victaulic fittings are VdS approved: No.10 90° Elbow, No.11 45° Elbow, No.20 Tee and No.60 Cap.

Note: The following Victaulic fittings are LPCB approved: No.10 90° Elbow, No.11 45° Elbow, No.12 22 1/2° Elbow, No.13 11 1/4° Elbow, No.30 45° Lateral, No.30-R Reducing Lateral, No.100 Long Radius Elbow, No.110 Long Radius Elbow, No.20 Tee, No.35 Cross, No.60 Cap, No.25 Reducing Tee, No.33 True Wye, No.50 Concentric Reducer, No.51 Eccentric Reducer and No.29M Tee with Threaded Branch.

Product Description

- Wide range of fittings from ¾ – 60"/20 – 1500 mm
- Fittings conform to the pressure ratings of the Style 77 coupling
- Fittings are provided with grooved or shouldered ends.

  Note: These fittings are not intended for use with Victaulic plain end couplings.
- Fittings are intended for use in grooved piping systems only

  Note: When connecting wafer or lug type butterfly valves directly to Victaulic fittings using Style 741 or 743 flange adapters, be sure to check disc clearance dimensions with I.D. dimension of fitting.

Job/Owner

System No.	
Location	

Contractor

Submitted By	
Date	

Engineer

Spec Section	
Paragraph	
Approved	
Date	

Material Specifications

Fitting: (specify choice)

- ☒ Standard: Ductile iron conforming to ASTM A-536, Grade 65-45-12.
- ☒ Optional: Segmentally welded steel as shown under nipples

Nipples: (specify choice)

- ☒ ¾ – 4”/20 – 100 mm: Carbon steel, Schedule 40, conforming to ASTM A-53, Type F
- ☒ 5 – 6”/125 – 150 mm: Carbon steel, Schedule 40, conforming to ASTM A-53, Type E or S, Gr. B
- ☒ 8 – 12”/200 – 300 mm: Carbon steel, Schedule 30 or 40, conforming to ASTM A-53, Type E or S, Gr. B

Flanged Adapter Nipples: (specify choice)

- ☒ Class 125 Flange: Cast iron conforming to ANSI B-16.1
- ☒ Class 150 Flange: Carbon steel conforming to ANSI B-16.5, raised or flat face
- ☒ Class 300 Flange: Carbon steel conforming to ANSI B-16.5, raised or flat face

Fitting Coating: (specify choice)

- ☒ Standard: Orange enamel.
- ☒ Optional: Hot dip galvanized and others. Some fittings supplied electroplated as standard – see product specifications.

Flanged Adapter Nipple Coating: (specify choice)

- ☒ Standard: None (Unfinished)
- ☒ Optional: Orange enamel, hot dip galvanized and others.

Flow Data

(Frictional Resistance)

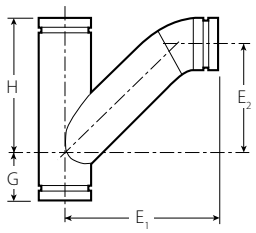
The chart expresses the frictional resistance of various Victaulic fittings as equivalent feet of straight pipe. Fittings not listed can be estimated from the data given, for example, a 22½° elbow is approximately one-half the resistance of a 45° elbow. Values of mid-sizes can be interpolated.

Size		Dimensions					
		90° Elbows		45° Elbows		Tees	
Nominal Size inches mm	Actual Outside Diameter inches mm	No. 10 Std. Radius feet meters	No. 100 1 ½ D Long Radius feet meters	No. 11 Std. Radius feet meters	No. 110 1 ½ D Long Radius feet meters	Branch feet meters	Run feet meters
1 25	1.315 33.7	1.7 0.5	—	0.8 0.2	—	4.2 1.3	1.7 0.5
2 50	2.375 60.3	3.5 1.1	2.5 0.8	1.8 0.5	1.1 0.3	8.5 2.6	3.5 1.1
76.1 mm	3.000 76.1	4.3 1.3	—	2.1 0.7	—	10.8 3.3	4.3 1.3
3 80	3.500 88.9	5.0 1.5	3.8 1.2	2.6 0.8	1.6 0.5	13.0 4.0	5.0 1.5
108.0 mm	4.250 108.0	6.4 2.0	—	3.2 0.9	—	15.3 4.7	6.4 2.0
4 100	4.500 114.3	6.8 2.1	5.0 1.5	3.4 1.0	2.1 0.6	16.0 4.9	6.8 2.1
133.0 mm	5.250 133.0	8.1 2.5	—	4.1 1.2	—	20.0 6.2	8.1 2.5
139.7 mm	5.500 139.7	8.5 2.6	—	4.2 1.3	—	21.0 6.4	8.5 2.6
5 125	5.563 141.3	8.5 2.6	—	4.2 1.3	—	21.0 6.4	8.5 2.6
159.0 mm	6.250 159.0	9.4 2.9	—	4.9 1.5	—	25.0 7.6	9.6 2.9
165.1 mm	6.500 165.1	9.6 2.9	—	5.0 1.5	—	25.0 7.6	10.0 3.0
6 150	6.625 168.3	10.0 3.0	7.5 2.3	5.0 1.5	3.0 0.9	25.0 7.6	10.0 3.0
8 200	8.625 219.1	13.0 4.0	9.8 3.0	6.5 2.0	4.0 1.2	33.0 10.1	13.0 4.0
10 250	10.750 273.0	17.0 5.2	12.0 3.7	8.3 2.5	5.0 1.5	41.0 12.5	17.0 5.2
12 300	12.750 323.9	20.0 6.1	14.5 4.4	10.0 3.0	6.0 1.8	50.0 15.2	20.0 6.1
14 350	14.000 355.6	24.5[1] 7.5	15.8 4.8	18.5[1] 5.6	11.0 3.4	70.0 21.3	23.0 7.0
16 400	16.000 406.4	28.0[1] 8.5	18.0 5.5	21.0[1] 6.4	13.0 4.0	80.0 24.4	27.0 8.2
18 450	18.000 457.0	31.0[1] 9.5	20.0 6.1	23.5[1] 7.2	14.0 4.3	90.0 27.4	30.0 9.1
20 800	20.000 508.0	34.0[1] 10.4	22.5 6.9	25.5[1] 7.8	16.0 4.9	100.0 30.5	33.0 10.1
24 600	24.000 610.0	42.0[1] 12.8	27.0 8.2	29.5[1] 9.0	19.0 5.8	120.0 36.6	40.0 12.2
AGS fittings available up to 60"/1500 mm. Contact Victaulic for details. AGS™							

1 Fitting flow data for 14-24"/350-600 mm size No. 10 and No. 11 Elbows is based on fittings for Style 07 and 77 couplings. For flow data on AGS fittings (No. W10 and No. W11 Elbows), refer to publication 20.05.

Tee Wye

No. 32



No. 32

Size					No. 32 Tee Wye (sw)				
Nominal Size inches mm					G inches mm	H inches mm	E_1 inches mm	E_2 inches mm	Approx. Weight Each lbs. kg
2 50	x	2 50	x	2 50	2.75 70	7.00 178	9.00 229	4.63 118	6.4 2.9
2½ 65	x	2½ 65	x	2½ 65	3.00 76	7.75 197	10.50 267	5.75 146	11.5 5.2
3 80	x	3 80	x	3 80	3.25 83	8.50 216	11.50 292	6.50 165	14.3 6.5
3½ 90	x	3½ 90	x	3½ 90	3.25 89	10.00 254	13.00 330	7.75 197	22.9 10.4
4 100	x	4 100	x	4 100	3.75 95	10.50 267	13.63 346	8.13 207	26.0 11.8
5 125	x	5 125	x	5 125	4.00 102	12.50 318	16.13 410	10.00 254	48.0 21.8
6 150	x	6 150	x	6 150	4.50 114	14.00 356	18.25 464	11.50 292	60.5 27.4
8 200	x	8 200	x	8 200	6.00 152	18.00 457	23.25 591	15.25 387	127.1 57.7
10 250	x	10 250	x	10 250	6.50 165	20.50 521	27.25 692	18.00 457	190.0 86.2
12 300	x	12 300	x	12 300	7.00 178	23.00 584	31.00 787	20.50 521	240.0 108.9

General Notes

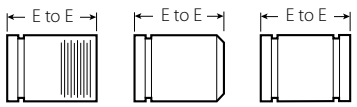
Note: All fittings are ductile iron unless otherwise noted with an (sw) or (s).

(s) = Carbon Steel Direct Roll Groove (OGS)

(sw) = Carbon Steel Segmentally Welded

Adapter Nipple

No. 40 [12] Grv. × Thd.
No. 42 Grv. × Bev.
No. 43 Grv. × Grv.



No. 40 No.42 No.43

Size		No. 40, 42, 43 Adapter Nipple (s)	
Nominal Size inches mm	Actual Outside Diameter inches mm	E to E inches mm	Approx. Weight Each inches mm
¾ 20	1.050 26.9	3.00 76	0.3 0.1
1 25	1.315 33.7	3.00 76	0.4 0.2
1¼ 32	1.660 42.4	4.00 102	0.8 0.4
1½ 40	1.900 48.3	4.00 102	0.9 0.4
2 50	2.375 60.3	4.00 102	1.2 0.5
2½ 65	2.875 73.0	4.00 102	1.9 0.9
3 80	3.500 88.9	4.00 102	2.5 1.1
3½ 90	4.000 101.6	4.00 102	2.1 0.9
4 100	4.500 114.3	6.00 152	5.5 2.5
5 125	5.563 141.3	6.00 152	7.4 3.4
6 150	6.625 168.3	6.00 152	9.5 4.3
8 200	8.625 219.1	6.00 152	14.2 6.4
10 250	10.750 273.0	8.00 203	27.0 12.2
12 300	12.750 323.9	8.00 203	33.0 15.0

12 Available with British Standard Pipe Threads, specify “BSP” clearly on order.

General Notes

For pump package nipples with 1 ½ ”/40 mm hole cut to receive Style 923 Vic-Let or Style 924 Vic-O-Well® request special No. 40, 42 or 43 nipples and specify No. 40-H, 42-H or 43-H on order. NOTE: 4 – 12”/100 – 300 mm diameter — 8”/200 mm minimum length required.

For roll grooved systems, Victaulic offers the Advanced Groove System (AGS). For pricing and availability of cut groove fittings in this size, contact your nearest Victaulic sales representative.

Note: All fittings are ductile iron unless otherwise noted with an (sw) or (s).

(s) = Carbon Steel Direct Roll Groove (OGS)

(sw) = Carbon Steel Segmentally Welded

